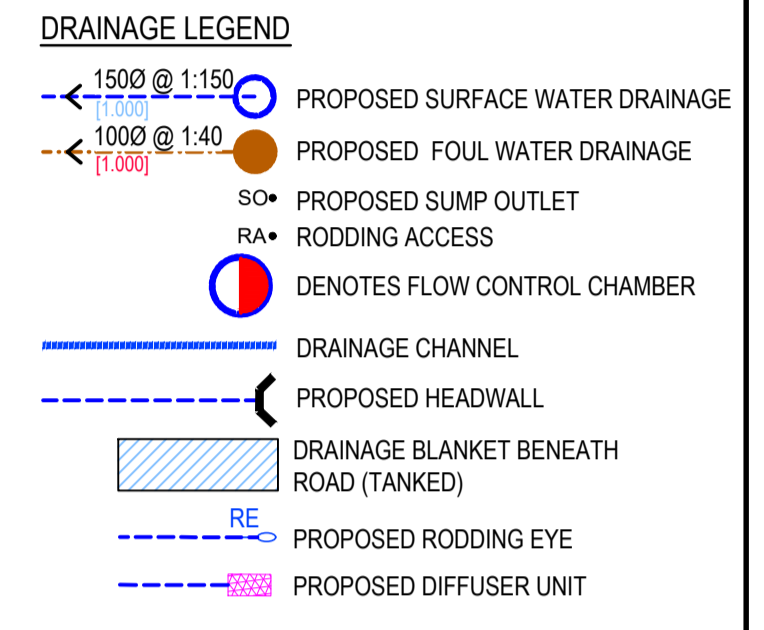


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  - ALL LEVELS ARE SHOWN IN METRES UNLESS NOTED OTHERWISE.
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  - TEMPORARY WORKS DESIGN BY OTHERS.
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**APPROVAL**

03	RM	RB	SH	SECTION MARKERS ADDED
02	LT	RB	SH	RAIN GARDENS ADDED. ACO CHANNELS AMENDED.
01	LT	RB	SH	PRELIMINARY ISSUE

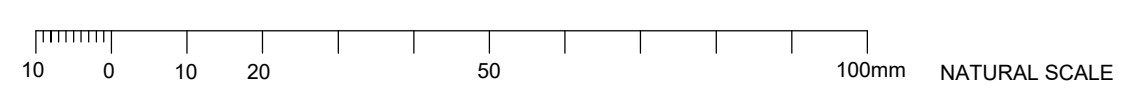
rev. drawn chkd. apprd. date description

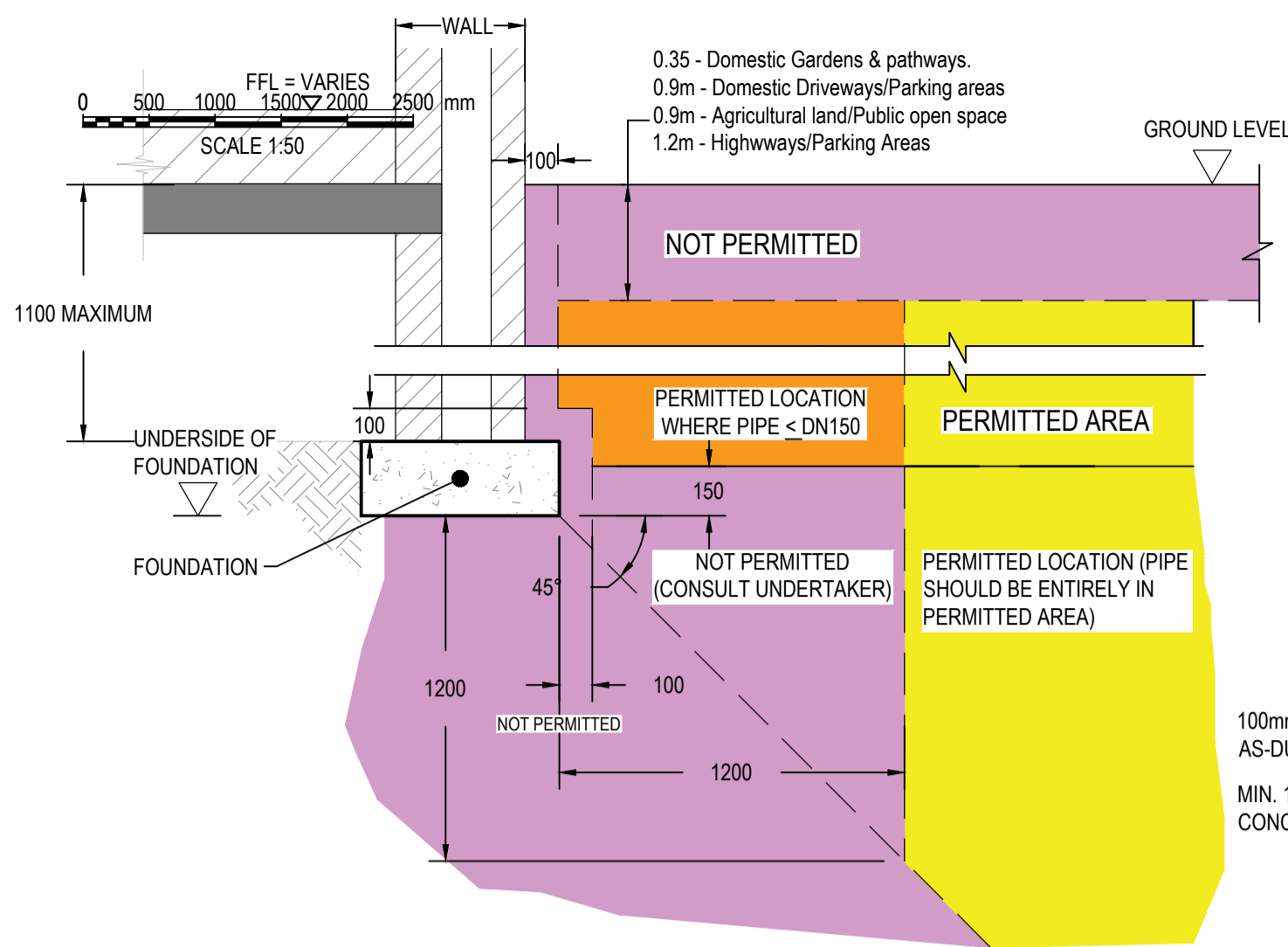
Client  
**MR MARTYN CHRISTOPHER**

Project  
**PARC EIRIN TONYREFAIL**

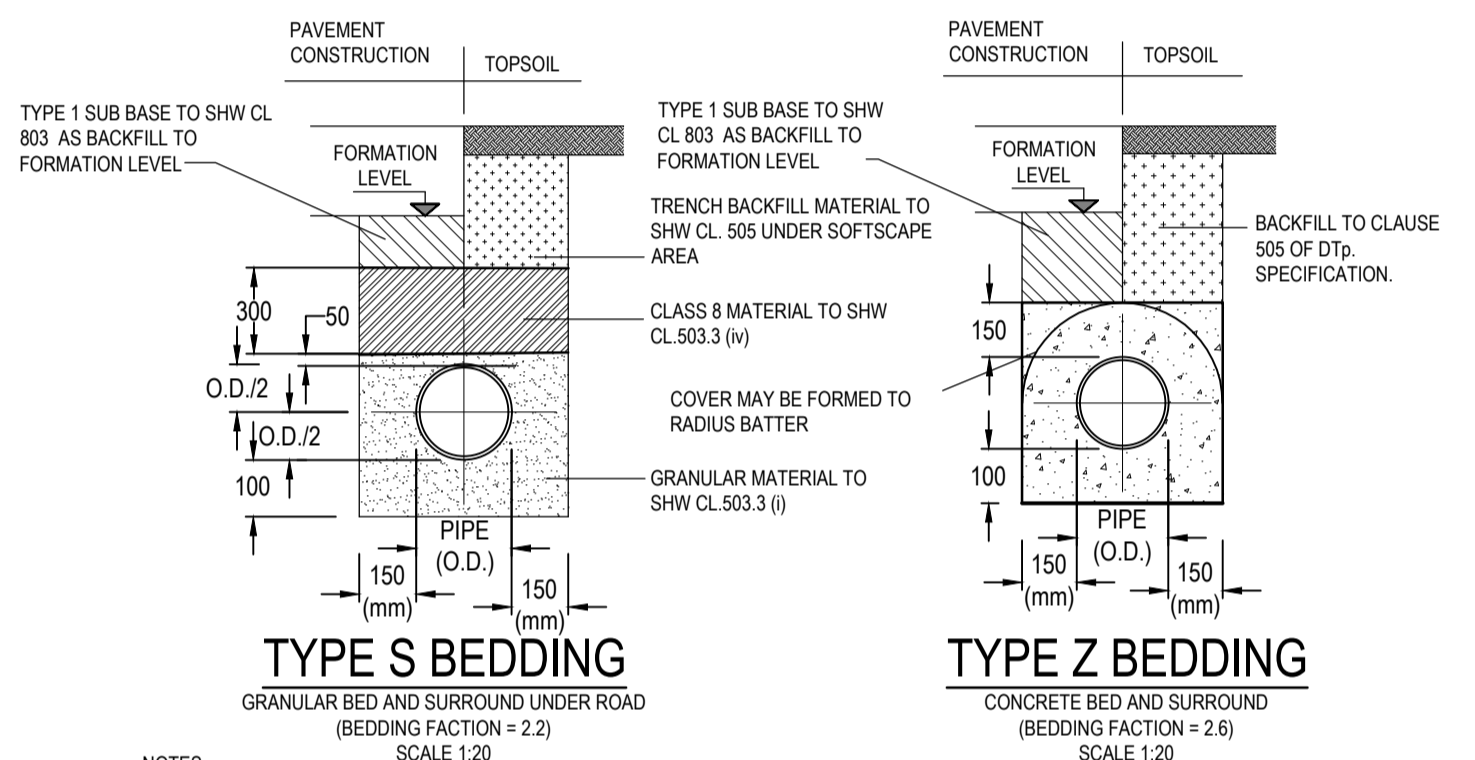
Title  
**DRAINAGE LAYOUT**

date		drawn	checked	approved
29.11.23		LT	RB	SH
scale @ A1		project no.		
1:250		16865		
status	drg. no.			rev.
A	16865/500			03



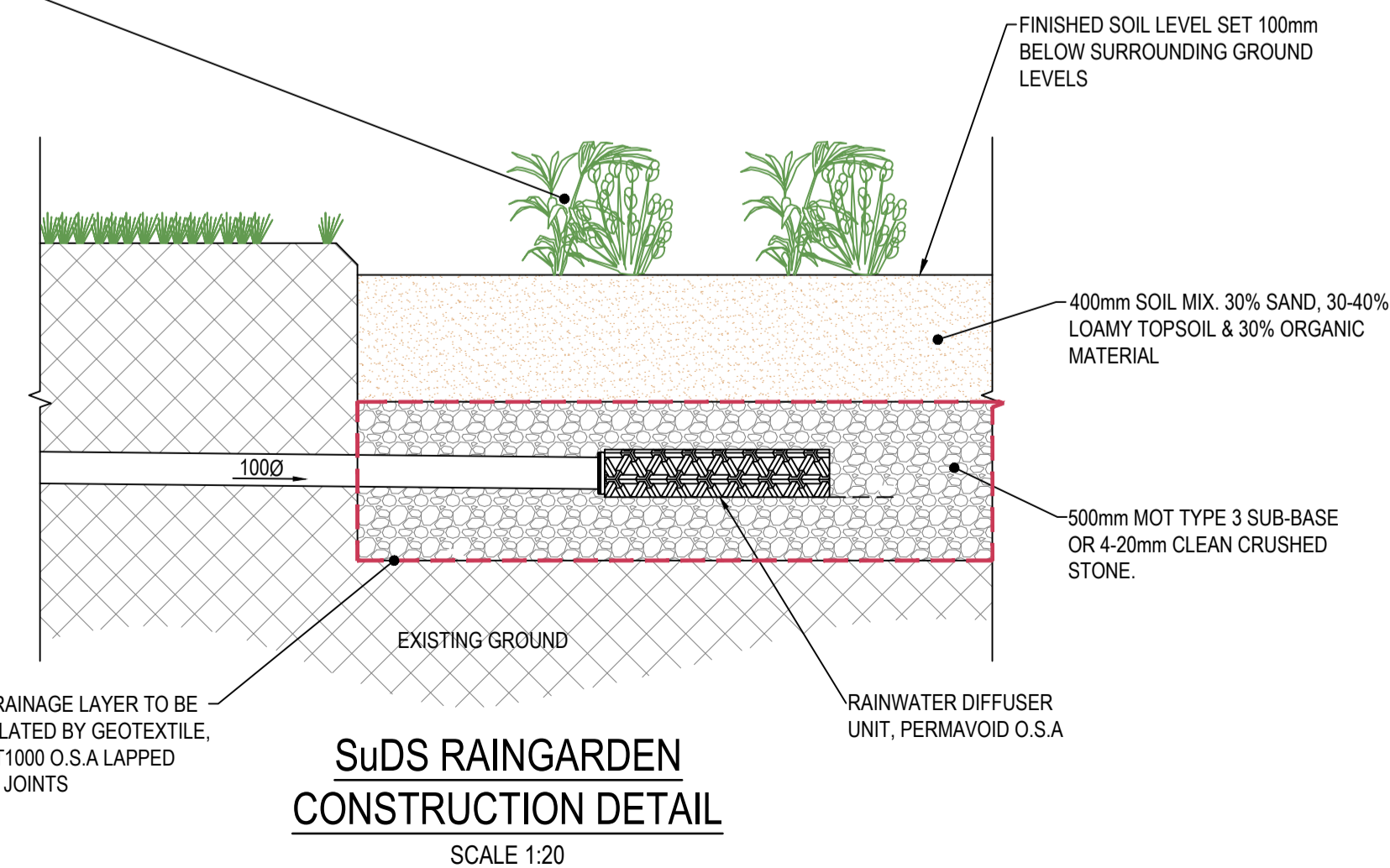


**TYPICAL DRAINAGE DETAIL IN CLOSE PROXIMITY OF FOUNDATIONS**  
(DETAIL IN ACCORDANCE WITH SFA FIGURE B1)

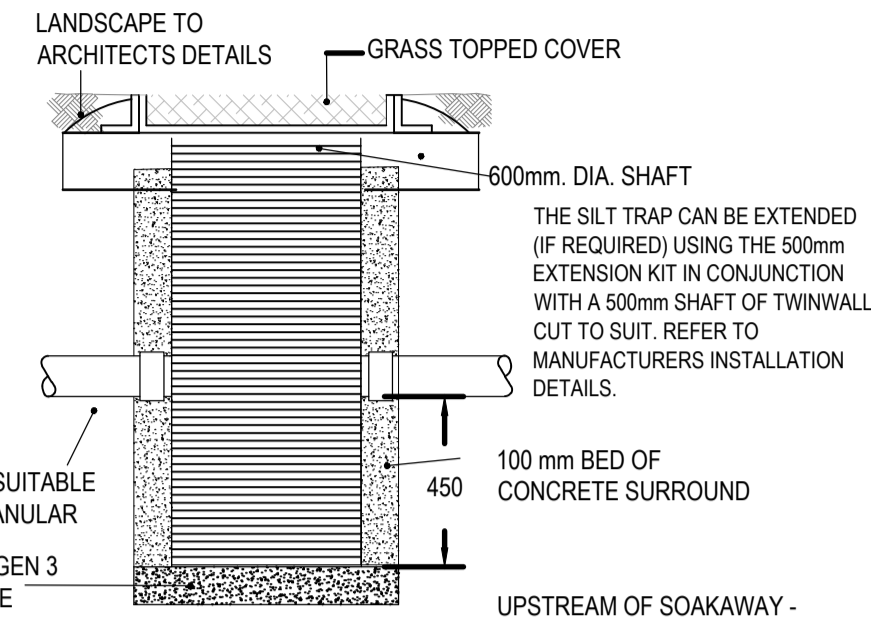


**BEDDING DETAILS**

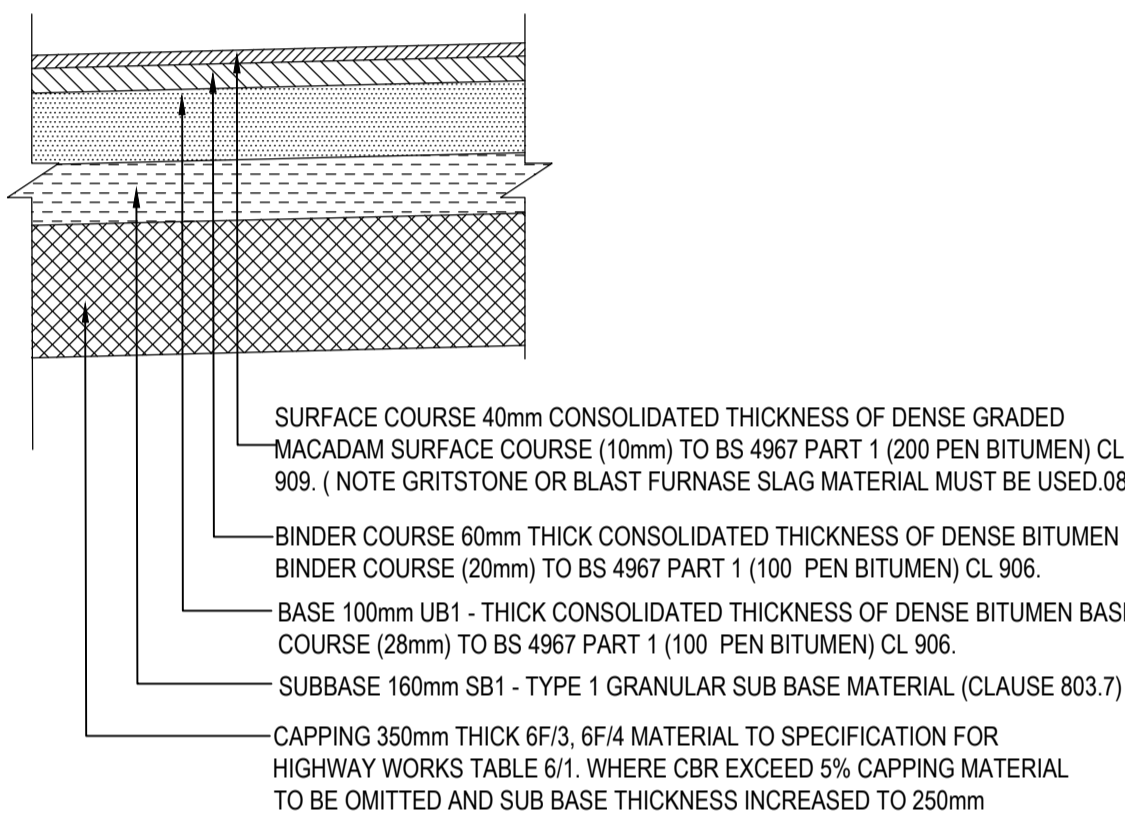
- Plants for raingarden:  
Density approx 4 No. per m<sup>2</sup>
- Shrubs**  
Buddleja davidii 'Nanho Purple'  
Cornus alba 'Sibirica'  
Fuchsia magellanica 'Riccartonii'  
Hydrangea arborescens 'Annabelle'  
Physocarpus 'Diablo'  
Rosa rugosa 'Rosea de Hay'  
Viburnum opulus 'Roseum'
- Herbaceous perennials**  
Alchemilla mollis  
Astrantia 'Ruby Wedding'  
Geranium Rozanne = 'Gerwat'  
Geum 'Mrs J. Bradshaw'  
Hemerocallis 'Burning Daylight'  
Hosta (Tardiana Group) 'Halcyon'  
Iris sibirica 'Tropic Night'  
Iris unguicularis  
Lythrum salicaria 'Robert'  
Persicaria affinis 'Darjeeling Red'  
Phlox paniculata 'White Admiral'  
Stachys byzantina  
Verbena bonariensis
- Grasses**  
Calamagrostis brachytricha  
Miscanthus sinensis 'Kleine Fontaine'
- Annuals and short-lived perennials that tolerate wet and dry soils due to their capacity to self-seed.**  
Aquilegia vulgaris  
Borago officinalis  
Digitalis purpurea  
Knautia macedonica  
Verbena bonariensis



**SuDS RAINGARDEN CONSTRUCTION DETAIL**  
SCALE 1:20



**TYPICAL UPVC CATCHPIT CHAMBER CONSTRUCTION**  
SCALE 1:20

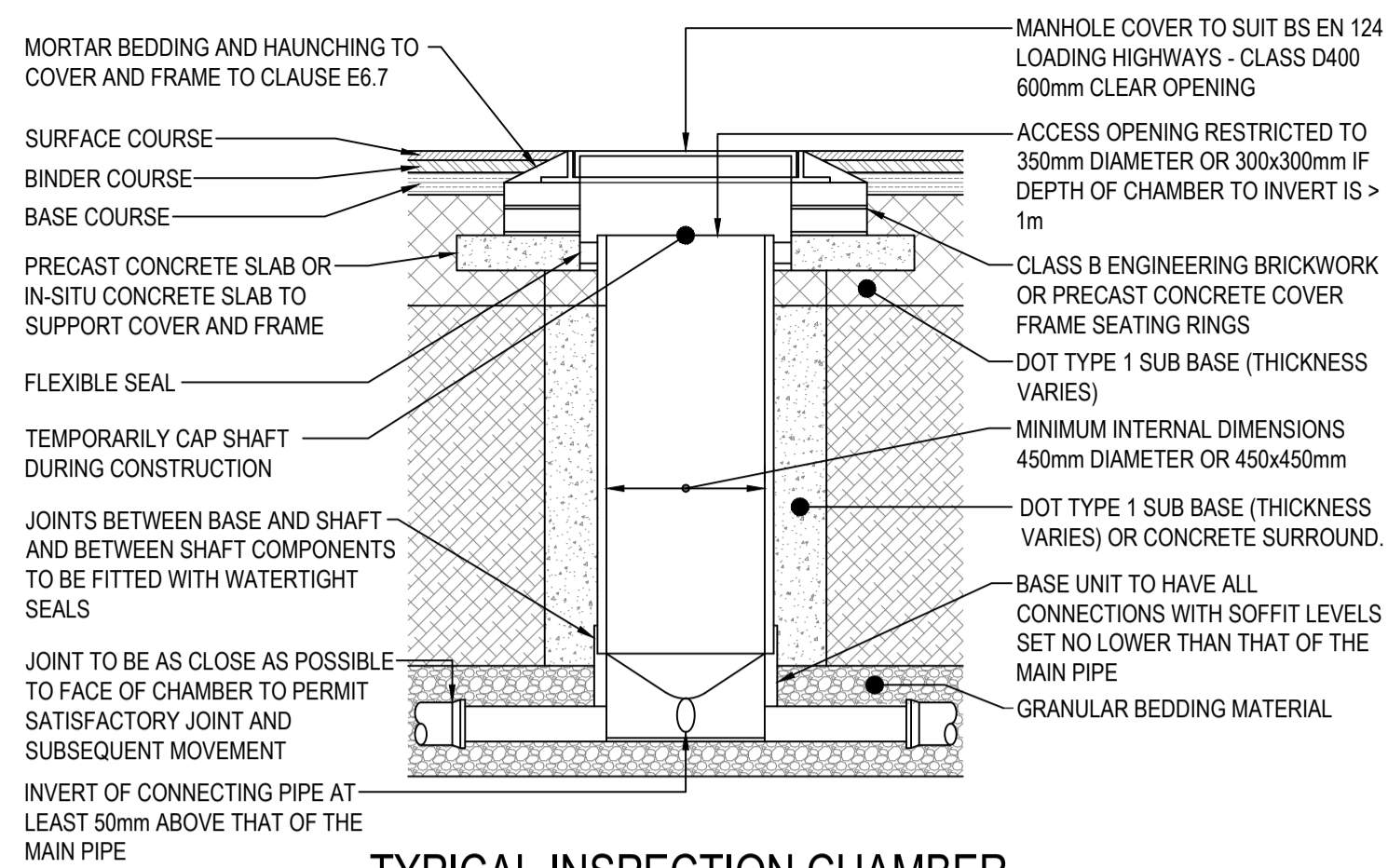


**DETAIL A TARMAC ROAD CONSTRUCTION DETAIL**  
SCALE 1:20

CBR	MINIMUM THICKNESS (mm)	
	CAPPING LAYER (mm)	SUB-BASE (mm)
UNDER 1%	DESIGN MUST BE AGREED WITH AND APPROVED BY THE COUNCIL'S ENGINEER BEFORE ANY WORKS COMMENCE	
1% - 2%	390	200 (SEE NOTE 2)
2% - 3%	350	150
3% - 4%	200	150
4% - 8%	150	150
8% - 15%	0	225
GREATER THAN 15%	0	150

TABLE 1 MINIMUM SUB-BASE AND CAPPING LAYER THICKNESS BY CBR

- NOTES:
- THE CAPPING LAYER SHALL CONSIST OF MATERIAL IN ACCORDANCE WITH CLAUSE 613 (CLASS 6 F2) OR RECYCLED MATERIAL TO THE SATISFACTION OF THE COUNCIL'S ENGINEER.
  - CBR RESULTS 1-2% MUST INCLUDE 1 LAYER GEOGRID TENAX FOR REINFORCEMENT AND 1 LAYER OF GEOTEXTILE ECOTEX TR14-694 FOR SEPERATION AT FORMATION LEVEL

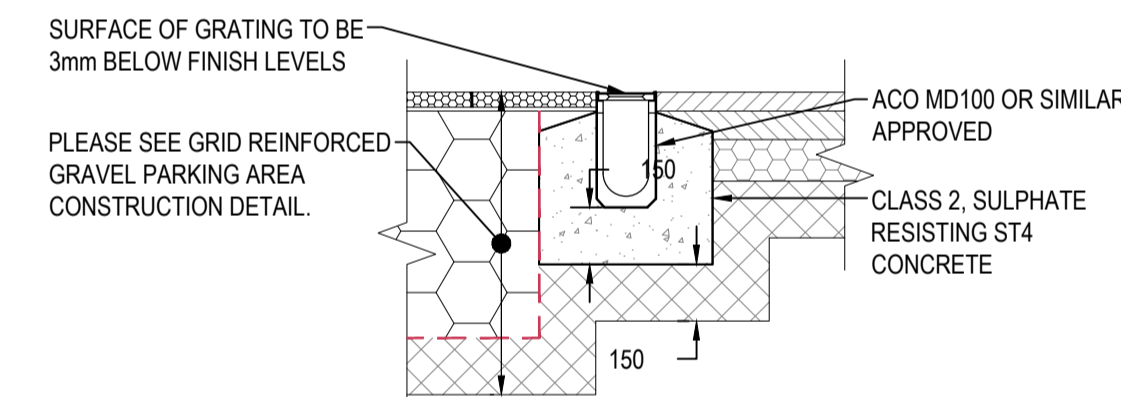


**TYPICAL INSPECTION CHAMBER DETAIL - TYPE 3**

(REFER TO FIG. B.16 OF SEWERS FOR ADOPTION 7th ED)  
(DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3m)  
(FLEXIBLE MATERIAL DETAIL)

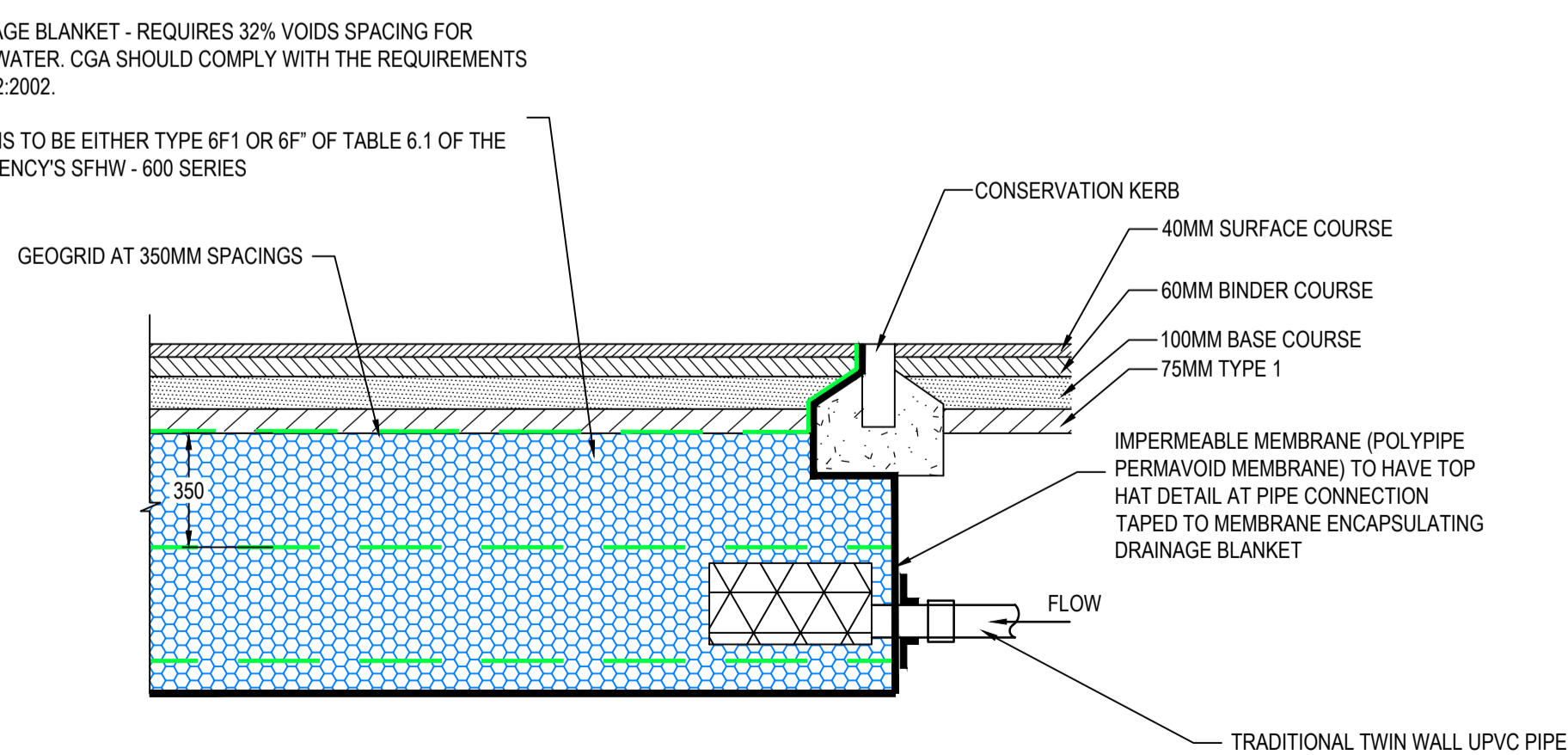
**ROAD NOTES**

- ROAD CONSTRUCTION BASED ON ASSUMED CBR RESULTS OF BETWEEN 2-5%. TO BE CONFIRMED ON SITE
- WHERE BASE COURSE TO BE TRAFFICKED FOR > 1 MONTH GRITSTONE AGGREGATE TO BE USED WITH BINDER CONTENT OF 5.7 ± 0.6% OR SURFACE DRESSED TO LOCAL AUTHORITY SPECIFICATION (S19 S.H.W.)
- LIMESTONE, BLAST FURNACE AND STEEL SLAG AGGREGATES NOT PERMITTED IN CARRIAGEWAY SURFACING COURSE.
- IF THE ROAD BASE OR BASE COURSE MATERIAL IS NOT COVERED IMMEDIATELY WITH THE ROAD BASE AND/OR BASE COURSE SHALL BE SPRAYED WITH A SEALING COAT OF BITUMINOUS SPRAY TO CLAUSE 920.
- WEED CONTROL GRANULES SUCH AS 'FYDULAN' AT A RATE OF SPREAD OF 18g/m<sup>2</sup> WILL NEED TO BE PROVIDED TO ALL SUB-BASE MATERIAL THAT IS INTENDED FOR ADOPTION.
- IN ACCORDANCE WITH THE DESIGN GUIDE THE SUB-BASE MUST BE THICKENED TO 150mm TO FOOTPATHS IN JUNCTION AND TURNING AREAS ABUTTING JUNCTION RADI AND TO TIGHT RADIUS BENDS WHERE THERE IS THE LIKHOOD OF VEHICLES OVERLAPPING THE FOOTPATH.
- ALL SUB-BASE MATERIALS TO BE COMPACTED IN ACCORDANCE WITH CLAUSE 802 AND TABLE 8/1.
- ALL BEDDING MORTAR SHALL BE CLASS 12 TO BS EN 998-2



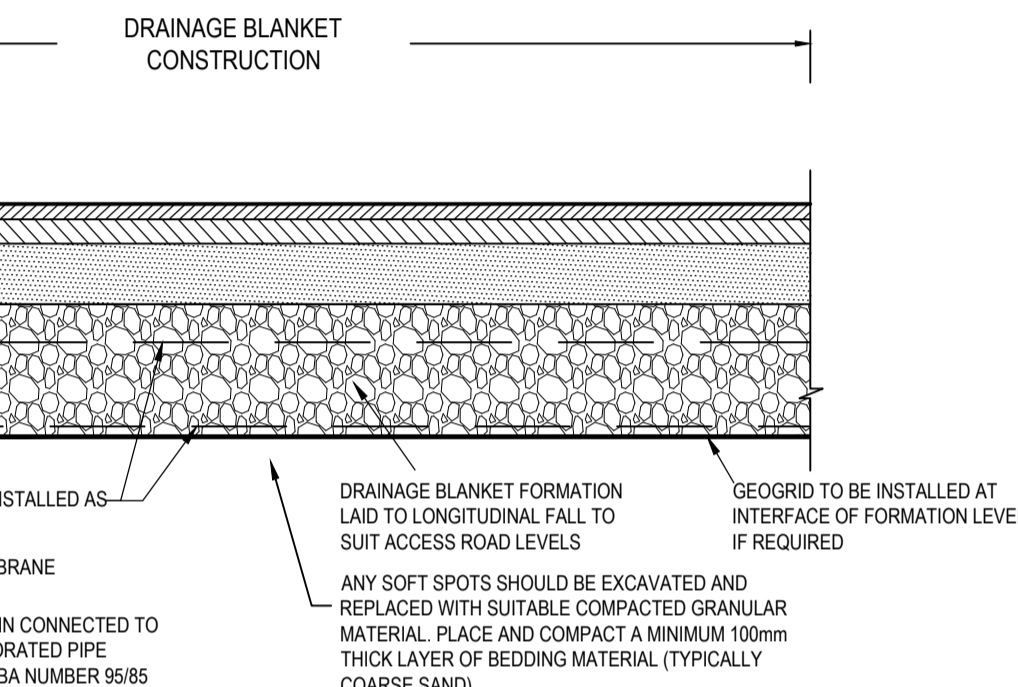
**DRAINAGE CHANNEL ABUTTING DRAINAGE BLANKET DETAIL**

N.T.S.

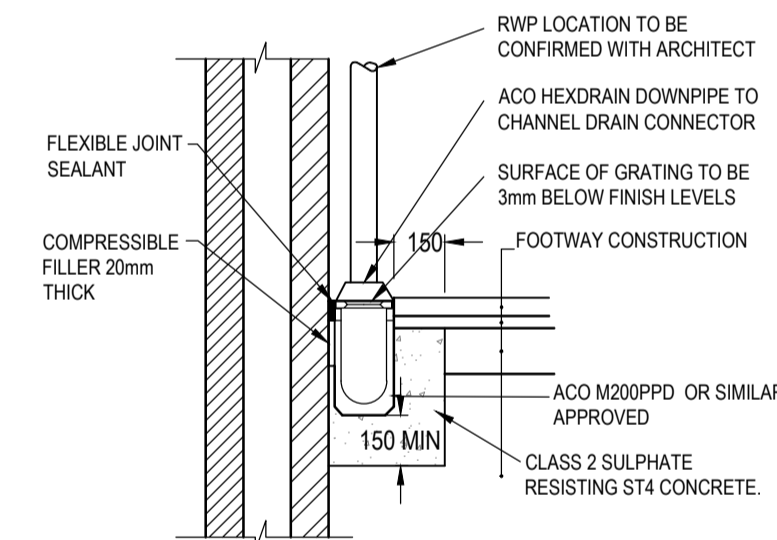


**PIPE CONNECTION TO DRAINAGE BLANKET**

- NOTE:  
WHERE FINISHED LEVEL IS REQUIRED TO BE BUILT UP THE DEPTH OF STONE IS TO BE INCREASED TO ENSURE FORMATION IS TAKEN A MIN. 150mm WITHIN EXISTING GROUND. WHERE DEPTH OF FILL IS MORE THAN 300mm ALLOW FOR 2 LAYERS OF TENSAR TRIAX GEOGRID OR SIMILAR APPROVED.

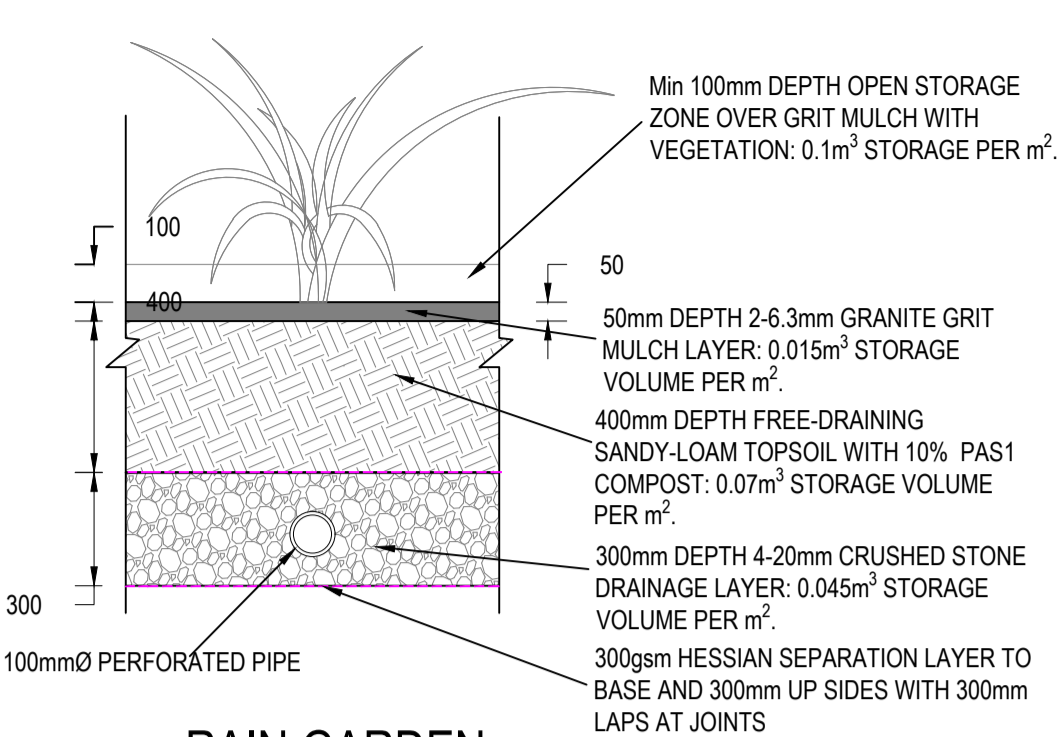


**DRAINAGE BLANKET FIN DRAIN OUTLET DETAIL**  
SCALE 1:20



**RAINWATER PIPE/DRAINAGE CHANNEL CONNECTION DETAIL**

SCALE (N.T.S.)



**RAIN GARDEN CONSTRUCTION DETAIL**  
SCALE 1:20

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**APPROVAL**

rev.	drawn	chd.	appd.	date	description
01	RM	RB	SH	15.01.24	FOR APPROVAL

Client  
**MARTYN CHRISTOPHER**

Project  
**PARC EIRIN TONYREFAIL**

Title  
**DRAINAGE DETAILS SHEET 1 OF 2**

**Vale Consultancy**  
CONSULTING CIVIL & STRUCTURAL ENGINEERS  
29 Bocam Park, Old Field Road, Pencoed, Bridgend CF35 5LJ.  
Phone: 01656 863794 Email: enquiries@vale-consultancy.co.uk

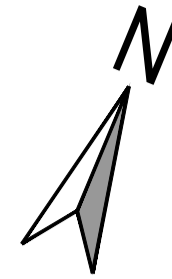
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15.01.24	RM	RB	SH

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**AS STATED**

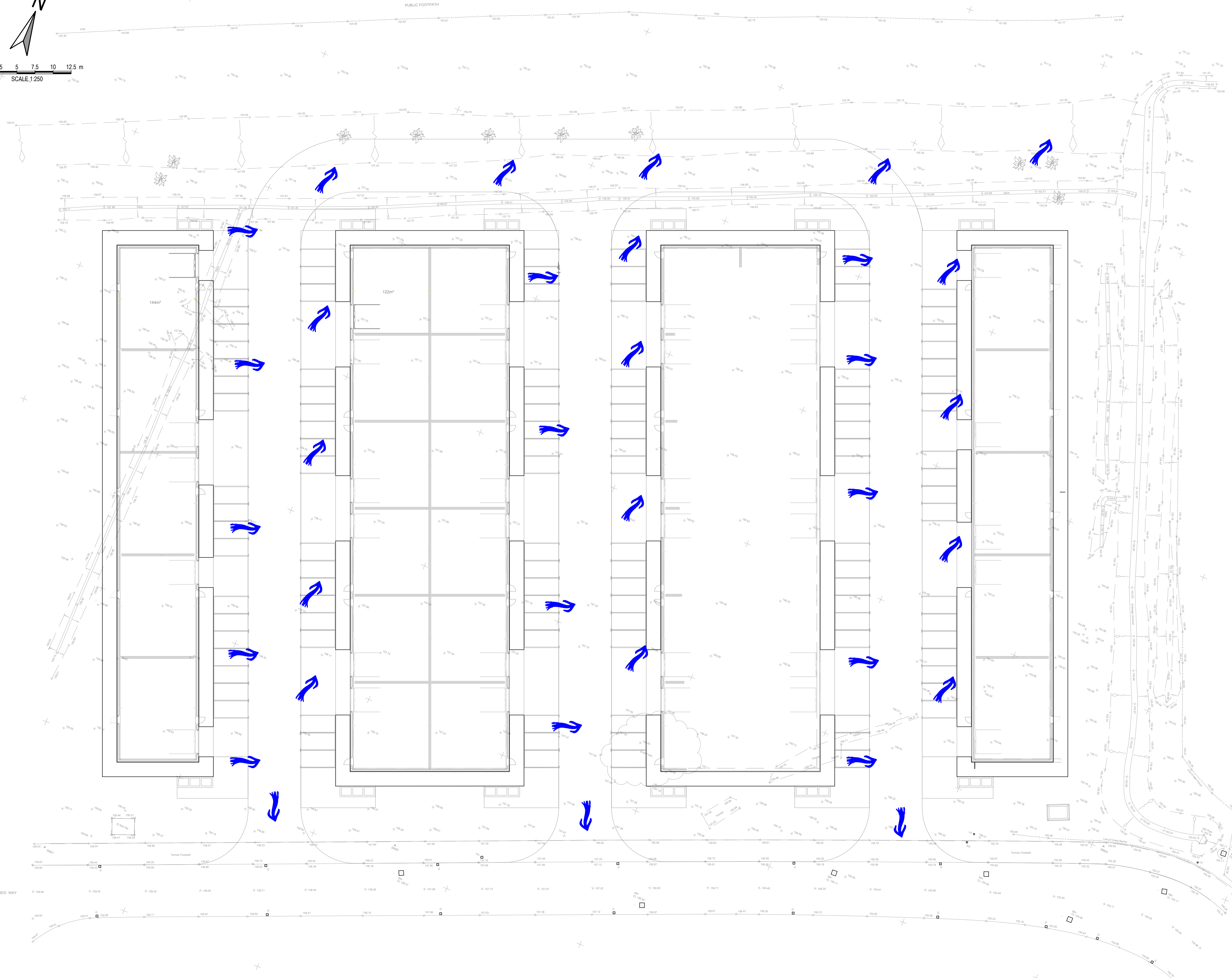
project no.  
**16865**

status	drg. no.	rev.
<b>A</b>	<b>16865_501</b>	<b>01</b>

DRAWING STATUS  
A - Approval, AB - As-Built, C - Construction, D - Draft, P - Preliminary, T - Tender



0 2.5 5 7.5 10 12.5 m  
SCALE 1:250



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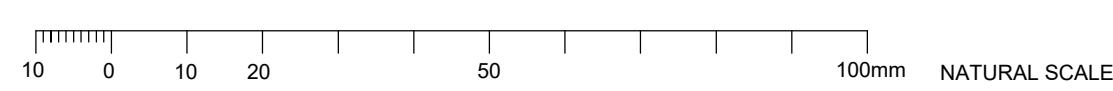
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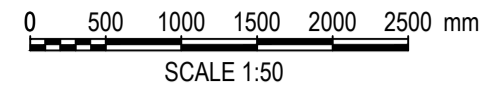
EXCEEDENCE FLOW

**NOTE:**  
DRAINAGE NETWORK DESIGNED FOR ALL EVENTS UP TO THE 100 YEAR + 40% CLIMATE CHANGE. NETWORK IS SUBJECT TO FULL MAINTENANCE INSPECTION REGIME AND IS THEREFORE EXCEEDENCE IS HIGHLY UNLIKELY.  
EVENTS IN EXCESS OF THE 1 IN 100 YR + 40%CC EVENT MAY RESULT IN SHALLOW PONDING WITHIN CAR PARK AREA WHICH WILL FLOW TO SWALE AND HIGHWAY.

**PRELIMINARY**

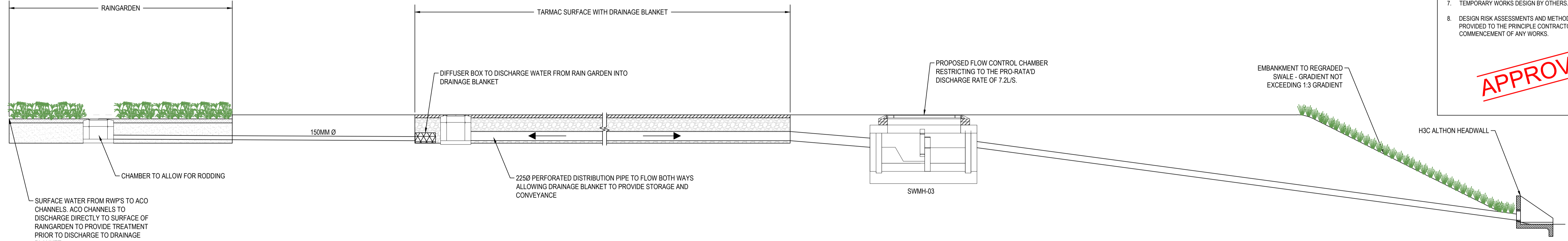
01	LT	RB	SH	29.11.23	PRELIMINARY ISSUE
rev.	drawn	chd.	appd.	date	description
Client <b>MR MARTYN CHRISTOPHER</b>					
Project <b>PARC EIRIN TONYREFAIL</b>					
Title <b>EXCEEDENCE FLOW PLAN</b>					
<p><b>Vale Consultancy</b> CONSULTING CIVIL &amp; STRUCTURAL ENGINEERS 29 Bocam Park, Old Field Road, Pencoed, Bridgend CF35 5LJ. Phone: 01656 863794 Email: enquiries@vale-consultancy.co.uk</p>					
date	drawn	checked	approved		
15.01.24	LT	RB	SH	15.01.24	15.01.24
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status	drg. no.				rev.
P	16865/500				01



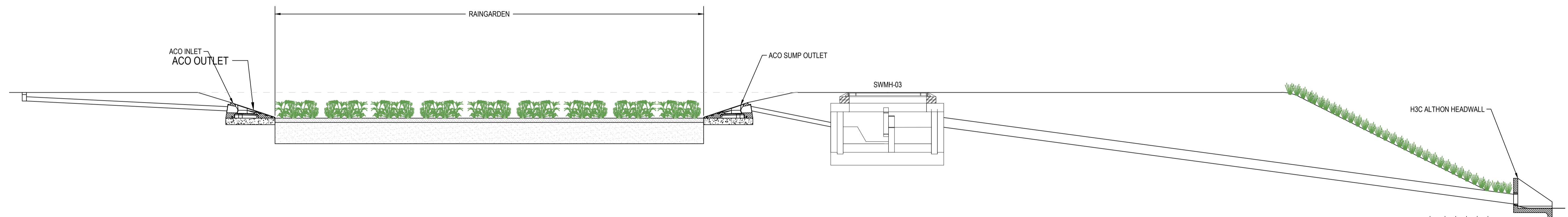


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**APPROVAL**

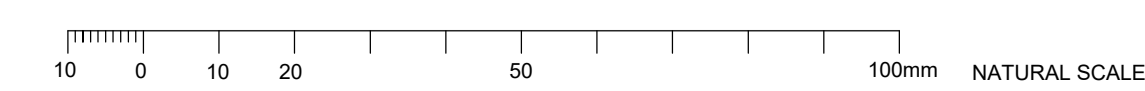


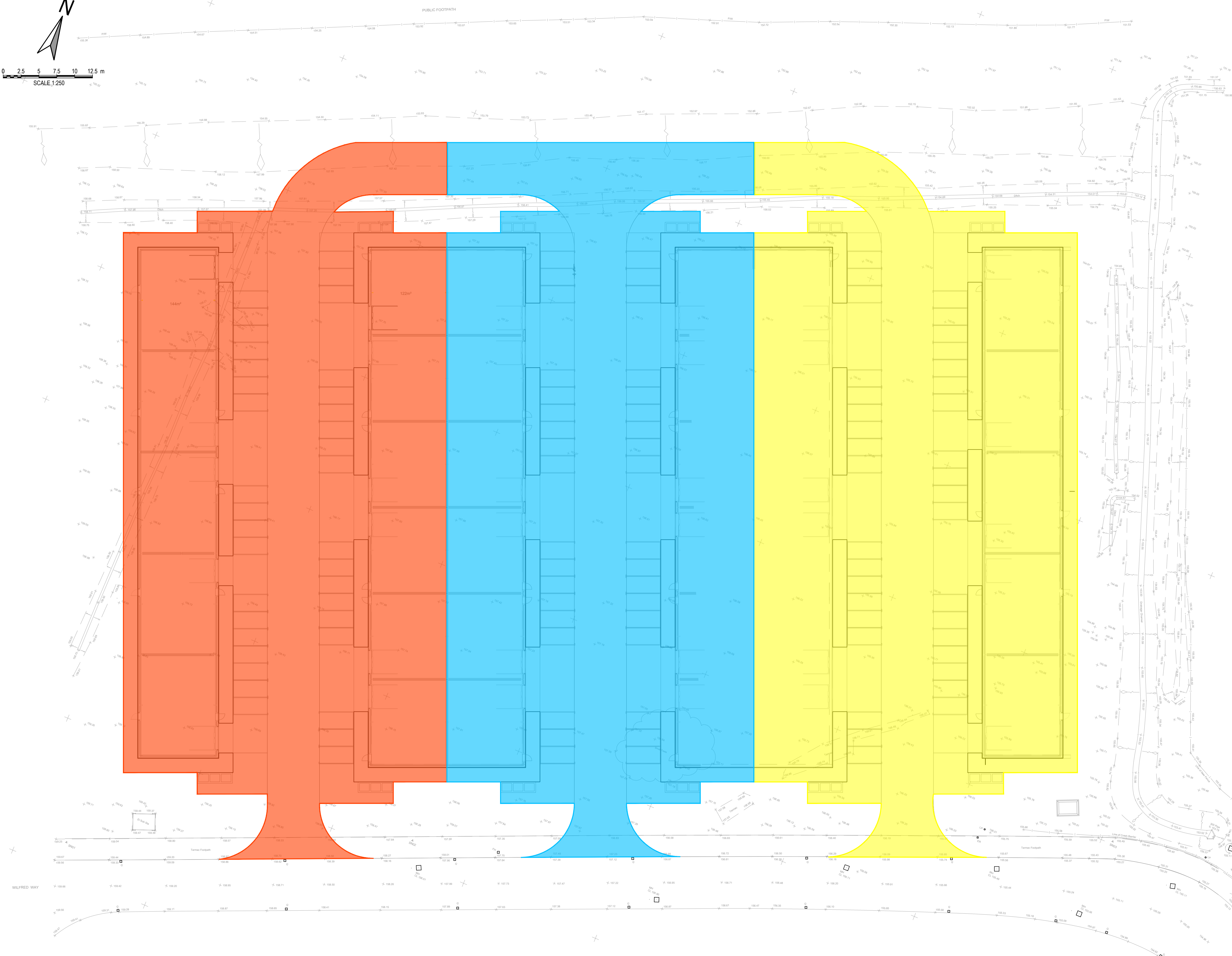
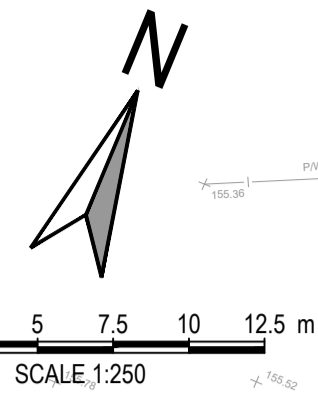
SECTION A-A



SECTION B-B

01	RM	RB	SH	15.01.24	FOR APPROVAL
rev.	drawn	chkd.	approved	date	description
Client <b>MARTYN CHRISTOPHER</b>					
Project <b>PARC EIRIN TONYREFAIL</b>					
Title <b>DRAINAGE DETAILS SHEET 2 OF 2</b>					
<p><b>Vale Consultancy</b> CONSULTING CIVIL &amp; STRUCTURAL ENGINEERS</p> <p>29 Bocam Park, Old Field Road, Pencoed, Bridgend, CF35 5LJ. Phone: 01656 863794 Email: enquiries@vale-consultancy.co.uk</p>					
date	drawn	checked	approved		
15.01.24	RM	RB 15.01.24	SH 15.01.24		
scale @ A1		project no.			
AS STATED		16865			
status	drg. no.				rev.
A	16865_505				01





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- CATCHMENT 1 - 3862M<sup>2</sup>
- CATCHMENT 2 - 3893M<sup>2</sup>
- CATCHMENT 3 - 3861M<sup>2</sup>

TOTAL IMPERMEABLE AREA - 11,616M<sup>2</sup>

APPROVAL

01	LT	RB	SH	15.01.24	PRELIMINARY ISSUE
rev.	drawn	chkd.	appvd.	date	description
Client					
MR MARTYN CHRISTOPHER					
Project					
PARC EIRIN TONYREFAIL					
Title					
CATCHMENT PLAN					
<b>Vale Consultancy</b> <small>CONSULTING CIVIL &amp; STRUCTURAL ENGINEERS</small> 29 Bocam Park, Old Field Road, Pencoed, Bridgend, CF35 5LJ. Phone: 01656 863794. Email: enquiries@vale-consultancy.co.uk					
date	drawn	checked	approved		
15.01.24	LT	RB	SH	15.01.24	15.01.24
scale @ A1				project no.	
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status	drg. no.				rev.
A	16865/502				01

